

## Original Article

# Knowledge Levels and Adolescent Attitudes towards the Implementation of BSE (Breast Self-Examination) in Level I Students

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ARTICLE INFO	ABSTRACT
<p>Article History:</p> <p>Submit : May 1, 2022</p> <p>Revised : May 20, 2022</p> <p>Accepted : May 24, 2022</p> <p>Online : June 30, 2022</p> <p>Keywords:</p> <p>Knowledge, Attitude, Early Detection, Breast Cancer</p>	<p><b>Background:</b> Breast cancer is a health problem and a cause of death in women. Many women unknowingly have breast cancer and are detected when it is at an advanced stage. The initial effort to detect breast cancer early is with regular BSE examinations carried out independently by women. However, many teenagers do not know about this BSE examination and rarely do it. This study aims to determine the relationship between the level of knowledge and adolescents' attitudes toward implementing BSE in Level I students of the Lahat Nursing Study Program, Poltekkes, Ministry of Health, Palembang in 2021. The study was carried May 21 to June 10, 2021.</p> <p><b>Methods:</b> This study used a quantitative method with a cross-sectional approach. The population in this study was the first-level student of the Lahat nursing study program, with a total sample of 66 female students using the total sampling technique. Data analysis was carried out univariate and bivariate using the Chi-Square test.</p> <p><b>Results:</b> The results show that there is a relationship between the levels of knowledge on the implementation of BSE (Breast Self-Examination) with a value (p-value = 0.001), and there is a relationship between attitudes towards the implementation of BSE (Breast Self-Examination) with a value (p-value = 0.001).</p> <p><b>Conclusion:</b> It is hoped that the Lahat nursing study program will be able to educate about BSE by placing posters about the early detection of breast cancer with BSE and including material about breast cancer and early detection with BSE in the learning materials especially in maternity.</p>
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## Introduction

Adolescence is a period of growth and development marked by very

rapid changes physically, psychologically, and cognitively. In the physical aspect, there is a process of sexual maturation and growth in

body posture that makes adolescents begin to pay attention to physical appearance. Adolescents' early growth and biological development are marked by the start of puberty. There is a change in sexual maturation ratings (SMR) in adolescents, wherein in female adolescents, there are changes in breast size enlargement, maturation of reproductive organs, and pubic hair growth (Fikawati et al. 2020). Reproduction consists of several sequences. One of them is menstruation. Menstruation has a relationship with exposure to the hormone estrogen. Therefore, it has a positive relationship to the risk of breast cancer, where the longer a person's life experiences a menstrual cycle (for example, early menarche is accompanied by a delay in the age of menopause), the higher the risk he faces. Against breast cancer, Signs and symptoms of breast cancer are often ignored, or their presence is not realized because before reaching a particular stage, cancer has not caused disturbances to the sufferer. Based on Dharmais National Cancer Hospital data, 85% of breast cancer patients come to the hospital in an advanced stage. The indicates that there is a lack of sound knowledge from the community about breast cancer prevention (Ariani, 2015; Arlisa, 2020; WHO, 2017)

Breast cancer is a health problem and a cause of death in women. Many women were unknowingly suffering from breast cancer and detected when it is at an advanced stage. Data from the Global Cancer Observatory in 2018 from the World Health Organization (WHO) shows that the most common cancer cases in

Indonesia are breast cancer, 58,256 cases or 16.7% of the total 348,809 cancer cases. Cervical (cervical) cancer is the second most common type of cancer in Indonesia, with 32,469 cases or 9.3% of the total cases. The Ministry of Health (Kemenkes) stated that the breast cancer rate in Indonesia reached 42.1 people per 100,000 population. The average death from this cancer reaches 17 people per 100,000 population. Many factors support the incidence of breast cancer in women, which can be life-threatening, as described in Suarni (2020), which explains the factors that can affect adolescents. The factors affected by breast cancer are lifestyle, diet, food eating culture (such as fried foods, consumption of fast food), age, not married, age at first giving birth, age at menarche, age at menopause, disease history, family history, oral contraceptives. Secondary prevention of breast cancer is by doing breast cancer screening. Breast cancer screening examines attempts to find abnormalities that lead to breast cancer in a person or group of people who do not have complaints.

The purpose of screening is to reduce breast cancer morbidity and mortality rates death. Secondary prevention is the *prima donna* in overall cancer treatment. One of the initial screenings is in the form of BSE (Breast Self-Examination) (Ministry of Health RI, 2020). BSE can be done well if the knowledge is good, someone who has good knowledge tends to have good BSE behavior, and BSE behavior can be done well and can last a long time if the person has good BSE knowledge (Notoatmodjo, 2014; Pamungkas & Usman, 2017)

explains that the behavior of a person or society regarding health is determined by knowledge, beliefs, attitudes, beliefs, and traditions. That means that a person's knowledge dramatically influences a person's behavior in acting, so with knowledge about BSE (Abay et al., 2018; Ahmed et al., 2018; Chen & Yang, 2018; Dadzi & Adam, 2019; Dagne et al., 2019; Dewi et al., 2019; Rahman et al., 2019), it will naturally grow motivation for someone to carry out early detection of breast cancer. On the other hand, if someone does not know about BSE, it is clear that they will not do early detection of breast cancer by doing BSE.

## Method

This research was conducted using quantitative research methods with a cross-sectional approach. The cross-sectional method is a type of research that emphasizes the time of measurement/observation of independent and dependent variable data only once at a time (Nursalam, 2013). In this study, the researchers wanted to know the relationship between the level of knowledge and adolescents' attitudes towards the implementation of BSE (breast self-examination). The population used in this study were all level 1 female students of the Lahat Nursing Study Program, Poltekkes Kemenkes Palembang. The sample is part of several characteristics possessed by the population. used for research (Nuridin, 2019; Nursalam, 2017). The sampling method in this study will use the total sampling technique, namely the sampling method, by making all

the population the research sample. The sample in this study amounted to 66 samples. Bivariate analysis in this study was tested using the Chi-Square test with a computer program. To see the results of the significance of calculating statistics, a significance limit of 0.05 was used. If the p-value is <0.05 (there is a significant relationship) while the acceptance of the hypothesis is if the p-value is > 0.05 (there is no significant relationship). The questionnaire used in this study is a standard questionnaire

## Results

Table 1. Frequency Distribution of Knowledge Levels BSE (Breast Self-Examination)

No	Knowledge	Frequency (n)	Percentage (%)
1	Good	27	40.9
2	Poor	39	59.1
Total		66	100

Table shows that of 66 people, female students found that most of them had poor knowledge, as many as 39 people (59.1%).

Table 2. Frequency Distribution of Attitudes About BSE (Breast Self-Examination)

No	Attitude	Frequency (n)	Percentage (%)
1	Supporting	25	37.9
2	Not Supporting	41	62.1
Total		66	100

Table shows that out of 66 female students, most of them have a

non-supportive attitude, as many as 41 people (62.1%).

Table 3. Relationship of Knowledge Level to Implementation of BSE (Breast Self-Examination)

Knowledge Level of	BSE Implementation				Total		P-Value
	Doing		Not Doing		n	%	
	N	%	N	%			
Good	14	51.9	13	48.1	27	100	0.001
Not good	4	10.3	35	89.7	39	100	
Total	18	27.3	48	72.7	66	100	

In table above, it was found that respondents who did BSE with a good level of knowledge were 14 respondents (51.9%) higher than respondents who did BSE with a poor level of knowledge, as many as four respondents (10.3%).

Table 4. Frequency distribution of BSE (Breast Self-Examination) Implementation

No.	Implementation of BSE	Frequency (n)	Percentage (%)
1	Doing	18	27.3
2	Not Doing	48	72.7
	Total	66	100

Based on table shows that out of 66 female students, it was found that most of the level I students of the Lahat Nursing Study Program did not carry out BSE, which amounted to 48 people ( 72.7%). Based on statistical tests using the Chi-Square test, the p-value = 0.001 (< from 0.05), which means Ho is rejected, and Ha is accepted, which means there is a significant relationship between the

level of knowledge on the implementation of BSE (Breast Self-Examination) in Level I Students. Lahat Nursing Study Program in 2021.

## Discussion

Based on the study results, it was found that respondents who did BSE with a good level of knowledge were 14 respondents (51.9%) higher than respondents who did BSE with a poor level of knowledge, as many as four respondents (10.3%). Based on statistical tests using the Chi-Square test, the p-value = 0.001 (< from 0.05), which means Ho is rejected, and Ha is accepted, which means there is a significant relationship between the level of knowledge on the implementation of BSE (Breast Self-Examination) in Level I Students. Lahat Nursing Study Program in 2021. Based on the study results, it was found that respondents who did BSE with a good level of knowledge were 14 respondents (51.9%) higher than respondents who did BSE with a poor level of knowledge, as many as four respondents (10.3%). Based on statistical tests using the Chi-Square test, the p-value = 0.001 (< from 0.05), which means Ho is rejected, and Ha is accepted, which means there is a significant relationship between the level of knowledge on the implementation of BSE (Breast Self-Examination) in Level I Students. The Lahat Nursing Study Program in 2021. The results and theory above are supported by previous research conducted by (Gejir et al., 2017) on the research topic of early detection of breast cancer in adolescent girls at

STIKes Keluarga Bunda Jambi Prodi DIII Midwifery Level 1.

Research results showing as many as six respondents (21.5%) with good knowledge had done BSE, while respondents who had less knowledge were two respondents (7.1%). The results of statistical tests obtained a p-value of 0.002, and it can be concluded that there is a significant relationship between knowledge of adolescent girls and BSE measures to prevent breast cancer at STIKes Keluarga Bunda Jambi Prodi DIII Midwifery Level I. as many as 13 respondents (52%) higher than respondents who did BSE with an unsupportive attitude as many as five respondents (12.2%). That means  $H_0$  is rejected, and  $H_a$  is accepted, which means there is a significant relationship between attitudes toward implementing BSE (Breast Self-Examination) in Level I Students of the Lahat Nursing Study Program in 2021. To support the implementation of BSE examinations in adolescents. A supportive attitude is needed so that adolescents have the desire to do the BSE examination. Based on the research results, theory, and related research, the researcher assumes that most teenagers have a less supportive attitude towards the implementation of BSE. Teenagers should have an attitude that supports BSE activities because a supportive adolescent attitude will have a positive meaning in implementing the BSE examination. Adolescents who are supportive mostly do BSE examinations.

## Conclusion

The frequency distribution of female students' level of knowledge about BSE is with poor knowledge. The frequency distribution of student attitudes obtained as having a supportive attitude and as many have a non-supportive attitude. Distribution of the frequency of BSE implementation, namely, most of them did not carry out BSE. There is a significant relationship between the level of knowledge on the implementation of BSE in level 1 female students of the Lahat Nursing Study Program at the Health Polytechnic of the Ministry of Health in Palembang in 2021.

There is a significant relationship between attitudes towards implementing BSE in the level 1 student nursing study program at Poltekkes Kemenkes Palembang in 2021. For Researchers The results of this study are expected to be an additional reference to continue research on BSE (Breast Self Examination) with different variables and methods.

For the Lahat Nursing Study Program, Poltekkes, the Ministry of Health, Palembang, it is hoped that educational institutions will be able to carry out community service activities by providing counseling, education about breast cancer, and providing training to the community to carry out BSE at home independently. It is hoped that the study program can provide education about BSE by installing posters about early detection of breast cancer with BSE and including material about breast cancer and early detection



with BSE in learning materials, especially in maternity.

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